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IX.—*Rhynchotal Notes*.—LVIII. By W. L. DISTANT.

HOMOPTERA.

Fam. Membracidae (continued from vol. xvi. p. 496).

BASILIDES, gen. nov.

Pronotum with the anterior area strongly gibbous, centrally perpendicularly raised, the apex developed into a transverse curved process on each side, the posterior process as in *Anchon*, Buckt.

The type of this genus is the *Centrotus bipennis*, Walk., for which that writer has given an unusually complete structural description, which may be used for the generic characters.

Allied to *Beninia*, Dist., from which it differs by the peculiar structure of the posterior pronotal process, which also separates it from the Australian genus *Eutryonia*, Goding. From the latter it is at once separated by the different structure of both the anterior and posterior pronotal processes.

Basilides bipennis.

Centrotus bipennis, Walk. List Hom. ii. p. 606 (1851).

Anchon fuscum, Buckt. Trans. Linn. Soc. Lond. (2) vol. ix. p. 334, pl. xxii. fig. 2 a (1906).

Hab. W. Africa; Old Calabar, Cameroons (*Escalera*, Brit. Mus.).

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Ibiceps mounseyi, sp. n.

Head and pronotum black; a frontal lateral pronotal fascia on each side, two discal pronotal fasciae, a central fascia to face, the elypeus, and lateral sternal areas greyish pubescent; legs testaceous; abdomen beneath black, excluding apical area, greyish pubescent; tegmina stramineous, apical area dark castaneous, base, costal and subcostal areas, and apical margin black; pronotum coarsely punctate, the anterior produced processes almost horizontal, very slightly recurved, their apices acute, disk centrally carinate, posterior process tricarinate and passing the posterior angle of the inner tegminal margin, frontal area strongly centrally carinate.

Long., incl. tegm., 12 mm.; exp. ant. pronot. process. 5 mm.

Hab. Philippine Islands (*J. J. Mounsey*).

Allied to *I. erigens*, Walk., but differing by the much more slender and less curved anterior pronotal processes, &c.

Ibiceps erigens.

Centrotus erigens, Walk. List Hom. ii. p. 614 (1851).

Sertorius erigens, Stål, Öfv. Vet.-Ak. Förh. 1870, p. 727.

Hab. Philippines.

GENUS LEPTOCENTRUS.

Leptocentrus, Stål, Hem. Afr. iv. pp. 87 & 90 (1866).

Rabduchus, Buckt. Monogr. Membrac. p. 251 (1903).

Bocchar (part.), Jacobi, Sjöstedt, Kilimandj. Exped. xii. p. 120 (1910).

Leptocentrus altifrons.

Centrotus altifrons, Walk. List. Hom. ii. p. 608 (1851).

Centrotus atratus, Walk. loc. cit. p. 624 (1851).

Rabduchus gnomon, Buckt. Monogr. Membrac. p. 251, pl. lvii. fig. 4 a (1903).

Leptocentrus bos, Melich. Wien. ent. Zeit. xxiv. p. 295 (1905).

Leptocentrus altifrons, Dist. Trans. Ent. Soc. Lond. 1913, p. 516 (pub. 1914).

Hab. Lagos, Calabar, Sierra Leone, Cameroons. Nyasaland; Melange (*S. A. Neave*). Uganda, N. Ruwenzori and Kafu R., near Hoima, Kampala Rd., 3500 ft. (*S. A. Neave*).

The unique type of *C. atratus*, Walk., is a mutilated one, with the posterior pronotal process broken off.

Leptocentrus confusus, sp. n.

Leptocentrus leucaspis, Melich. (nec Walk.), Wien. ent. Zeit. xxiv. p. 295 (1905).

Bocchar montanus, Jacobi (var.), Sjöstedt, Kilimandj. Exped. xii., Hom. p. 120, t. ii. fig. 2 (1910).

Hab. Cameroons (*Escalera*, Brit. Mus.). Brit. East Africa; W. slopes of Kenya on Meru-Nyeri Rd., 6000-8500 ft., and E. foot and slopes Aberdare Mts., 7000-8500 ft. (*S. A. Neave*).

Distinguished from *L. altifrons* by the shorter and more robust lateral pronotal processes.

Leptocentrus ugandensis, sp. n.

Head, pronotum, scutellum, body beneath, and legs black; tegmina bronzy brown, the apical area transversely and fasciately ochraceous, base, costal area, and apical margin black; pronotum thickly coarsely punctate, strongly, centrally, percurrently carinate, the lateral processes moderately convexly recurved, their apices subacute, posterior process somewhat slender, strongly tricarinate, its apex passing the posterior angle of the inner tegminal margin.

Long., incl. tegm., $8\frac{1}{2}$ -9 mm.; exp. pronot. lat. process. $4\frac{1}{2}$ -5 mm.

Hab. Uganda; Entebbe (*C. C. Gowdey* and *C. A. Wiggins*); Buamba Forest, Semliki Valley; Budongo Forest, Unyoro; Mabira Forest, Southern Toro, Mbarara, S. of L. George (*S. A. Neave*).

This very distinctly marked species is allied to that described and figured by Buckton as *Ibiceps rufipennis* from the Cameroons (Trans. Linn. Soc. Lond., Zool. (2) vol. ix. p. 334, pl. xxii. fig. 8 a, 1906). When this species is studied by its short description and the qualifications perused on the "Explanation of the Plate," it can with certainty be ascribed to the genus *Leptocentrus*, and to be separated from the species above described by the much more upwardly raised lateral pronotal processes.

Leptocentrus peracatus, sp. n.

Head, pronotum, scutellum, body beneath, and legs black; tegmina pale brownish ochraceous; pronotum coarsely punctate, the lateral processes long, their expanse equalling the length of the body including tegmina, carinate and roundly curved, the apices acute and recurved, the central

carination less prominent frontally than discally, the posterior process very strongly tricarinate, curved backwardly, the apical area impinging on tegmina at and beyond posterior angle of inner tegminal margin, the apex acute; tarsi testaceous; scutellum more or less greyishly pubescent.

Long., incl. tegm., 9 mm.; exp. lat. pronot. process. 9 mm.

Hab. Somaliland (*E. Lord Phillips*, Brit. Mus.).

Xiphopæus erectus, sp. n.

Pale fuscous brown, more or less greyishly tomentose; lateral margins of the pronotum distinctly greyish; femora black, their apices and the whole of the tibiæ and tarsi pale ochraceous; tegmina dull greyish, the venation and the apical area (more or less) pale fuscous brown; pronotum with the lateral processes obliquely erect, inwardly coarsely serrate for about half their length, their apices broadened, flattened and bispinous, in other respects resembling *O. phantasma*, Spin., from West Africa, and *O. horridulus*, Walk., from Southern Africa. From the first this species is separated by the less broadened and differently angulated apices of the pronotal processes, and from the second by the same character and the more obliquely erect direction of the processes.

Long., incl. tegm., $6\frac{1}{2}$ mm.; exp. pronotal process. 5 mm.

Hab. Uganda; Kafu R., near Hoima, Kampala Road, 3000-5000 ft., and N. of L. Isolt, 3700 ft. (*S. A. Neave*).

In the genus *Kleidus* = *Xiphopæus*, Buckton (Trans. Linn. Soc. Lond. (2) vol. ix. p. 333, 1906) has described a species from Zanzibar under the name of *Kleidus palmatus*. I have not seen the type, and the short description is insufficient.

ELIGIUS, gen. nov.

Elongate, moderately compressed; pronotum with the lateral processes long, broad, laminate, erect, the posterior margins bicarinate, more flattened anteriorly, and broadly rounded at apices, the posterior apex shortly spinous, posterior process strongly tricarinate, slightly recurved on apical area, moderately broad at base, gradually narrowing to apex, which is subacute, and slightly passing the posterior angle of inner tegminal margin; tegmina elongate, with five apical cells, their margins straight.

The erect, broadly laminate, pronotal lateral processes, and the gradually narrowing posterior process, are the salient characters of this genus, the first feature separating it from *Centropygus*, Stål.

Eligius merinjakensis.

Head and pronotum black; body beneath and legs piceous; tegmina bronzy brown, the costal area black; pronotum coarsely punctate, centrally longitudinally carinate, the posterior process very strongly tricarinate, and between the carinations very coarsely punctate; tegmina twice longer than broad.

Long., incl. tegm., 7 mm.

Hab. Borneo; Mt. Merinjak (*J. C. Moulton*).

GENUS EUFRENCHIA.

Eufrenchia, Goding, Proc. Linn. Soc. N.S.W. xxviii. p. 24 (1903).

Sertorius, Stål (part.), Öfv. Vet.-Ak. Förh. 1869, p. 287.

Type, *E. falcata*, Walk.

Stål (*supra*) referred to his genus *Sertorius* (indicated without type in his 'Hem. Africana'), and including his *S. curvicornis* = *Centrotus falcatus*, Walk. This alone would have disqualified *Eufrenchia*, of which *falcatus* is the type. However, previously, in 1866, "Berl. ent. Zeitschr. x. p. 387," Stål had given *Centrotus australis*, Fairm., as the type of his genus *Sertorius*, which disposes of his subsequent determination (1869), and the genus *Eufrenchia* becomes a necessity.

Eufrenchia falcata.

Centrotus falcatus, Walk. List Hom. ii. p. 622 (1851).

Centrotus bicurris, Walk. List Hom., Suppl. p. 164 (1858).

Sertorius curvicornis, Stål, Öfv. Vet.-Ak. Förh. 1869, p. 287.

Eufrenchia falcata, Goding, Proc. Linn. Soc. N.S.W. xxviii. p. 25 (1903).

Hab. Australia; Tasmania.

Walker ascribed the habitat of his *C. bicurris* (*supra*) as "New Hebrides?" The specimens on which he founded his species were really received from Australia.

Eufrenchia strigata.

Centrotus strigatus, Walk. Journ. Linn. Soc. Lond., Zool. x. p. 184 (1868).

Hab. New Guinea.

Otinotus nigrorufus, sp. n.

Head, pronotum, and scutellum black; lateral apices of the scutellum ochraceous; lateral margins of face and lateral

areas of sternum ochraceously tomentose; body beneath and femora blackish, tibiae and tarsi castaneous; tegmina shining pale castaneous, extreme base black, immediately followed by an obscure transverse ochraceous fascia; pronotum very coarsely punctate, the lateral processes horizontally and a little upwardly produced, centrally carinate, their apices obtuse and very slightly recurved, posterior process somewhat slender, tricarinate, very slightly elevated above the scutellum, after which it impinges more or less on the tegmina, its apex subacute and passing the posterior angle of the inner tegminal margin; tegmina punctate on the black base.

Long. 8-9 mm.; breadth lat. pronot. process. 5-5½ mm.

Hab. Uganda, near Masindi, 3500 ft.; Eastern Mbale Distr., S. of Mt. Elgon, 3700-3900 ft.; Mpanga Forest, Toro, 400-800 ft.; Mabiri Forest, Chagwe, 3500-3800 ft.; Kafu R., near Hoima, Kampala Rd., 3500 ft., between Jinja and Busia, E. Busoga (*S. A. Neave*). Entebbe (*C. C. Gowdey*). Brit. E. Africa, slopes of Mt. Elgon, 5100-5800 ft. (*S. A. Neave*).

Otinotus recurvus, sp. n.

Closely allied to the preceding species in colour and markings, but with the pronotal lateral processes broader, more distinctly recurved, and less obliquely elevated; the posterior pronotal process considerably more elevated above the tegmina, which are also paler and more ochraceous in hue.

Long. 10 mm.; breadth lat. pronot. process. 6 mm.

Hab. Uganda; Entebbe (*C. C. Gowdey*); shores of L. Isolt or Wamala, 3800 ft. (*S. A. Neave*).

Otinotus curvidens, sp. n.

Allied to the preceding species, *O. recurvus*, but with the lateral pronotal processes much more slender, though somewhat similarly recurved, but when viewed from the front appearing much shorter and less obliquely raised; scutellum with a white spot at each basal angle and the apex ochraceous (these markings, however, are inconstant); apical area of posterior pronotal process impinging on tegmina.

Long. 8-9 mm.; breadth lat. pronot. process. 4½-5 mm.

Hab. Cameroons (*Escalera*). Uganda; Entebbe (*Dr. C. A. Wiggins*); between S.E. shore of L. Kioga and Kaindu, 3500 ft. (*S. A. Neave*).

Centrotus marshalli, sp. n.

Ochraceous; tegmina with two dark suffusions, one at

base black, the other (nearly occupying apical area) bronzy brown; face (excluding lateral margins) black; pronotum thickly, rather finely punctate, with the anterior lateral processes broad, somewhat discally flattened, moderately narrowed towards apices, which are somewhat recurved and obliquely truncate, these processes are subhorizontal and very slightly elevated, the disk is distinctly centrally carinate above, but faintly and obsoletely so in front, posterior process moderately undulate, distinctly separate from scutellum, impinging on tegmina beyond scutellum, its apex about reaching the posterior angle of inner tegminal margin, gradually diminishing in breadth from base to apex, which is subacute, centrally rather strongly carinate; tegmina strongly wrinkled, the basal black area finely punctate.

Long. $6\frac{1}{2}$ –7 mm.; breadth lat. pronot. process. $4\frac{1}{2}$ –5 mm.

Hab. Mashonaland; Salisbury, 5000 ft.; Umfuli River (G. A. K. Marshall).

Centrotus laxatus, sp. n.

Allied to the preceding species *C. marshalli*, but differing in the following characters:—the lateral pronotal processes are broader, longer, and less apically recurved, the apices blackly margined, more truncately oblique, and distinctly finely bicarinate on the apical areas; the posterior pronotal process is more robust, its apex more downwardly recurved and passing the posterior angle of the inner tegminal margin; the coloration is generally similar, but on the tegmina the bronzy-brown apical area is much less pronounced and more distinct at its inner margin.

Long. $8\frac{1}{2}$ mm.; breadth lat. pronot. process. 6 mm.

Hab. Natal; Durban (*J. P. Cregoe*).

Centrotus cornutus.

Cicada cornuta, Linn. Syst. Nat. ii. p. 705. 6 (1767).

Centrotus cornutus, Buckt. Monogr. Membrac. p. 245, pl. lvi. figs. 7 a, b (1903).

Campylocentrus rugosus, Buckt. loc. cit. p. 243, pl. lvi. fig. 3 a (1903).

Although Buckton's figures are somewhat diverse, I have before me the type of his *C. rugosus* and his identical specimen of typical *cornutus*.

Platybelus sinuosus, sp. n.

Piceous brown, somewhat thickly ochraceously pilose; legs brownish ochraceous, femora piceous brown; face longly

and strongly ochraceously pilose, lateral areas of sternum dull ochraceously tomentose; abdomen beneath blackish; tegmina brownish ochraceous much suffused with piceous brown, especially at base and on costal and subcostal areas; pronotum with the frontal area obliquely convex, the lateral processes somewhat short, moderately recurved, and apically bent downwardly, broad at base, subacute at apices, the posterior process very strongly sinuous, strongly elevated above scutellum, and roundly depressed and touching tegmina near its base, afterwards broadly concave before posterior angle of inner tegminal margin, and again depressed and becoming subacute at apex, which nearly reaches tegminal apex.

Long. 8 mm.; breadth lat. pronot. process. $4\frac{1}{2}$ mm.

Hab. Nyasaland.

A distinctive character of this species is found in the peculiar structure of the pronotal lateral processes.

BARSUMAS, gen. nov.

Pronotum with the disk a little rounded in front between the lateral processes, which are short, broad, a little upwardly raised, their apices suddenly narrowed, acute, and a little recurved, the posterior process very strongly sinuous, at base strongly convexly raised above the scutellum, at the extremity of which it touches the tegmina, then again convexly raised and broadened but still adjacent to the tegmina, its apex suddenly attenuate and acute and passing the posterior angle of the inner tegminal margin, the whole of its surface shortly spinous above; tegmina closely wrinkled, with the venation very prominent.

This genus is allied to *Platybelus*, Stål.

Barsumas primus, sp. n.

Head, pronotum, body beneath, and legs testaceous or castaneous; tegmina subhyaline, wrinkled, the prominent veins pale ochraceous, the base, some irregular scattered markings, and extreme apical margin castaneous; pronotum with the disk strongly centrally carinate, paler in hue at and near the lateral processes, which have their margins serrate, the acute narrowed apices darker in hue, the posterior sinuated process with its upper surface strongly serrate, its apical area finely tuberculate, its extreme apex flavous, lateral margins behind the bases of the lateral processes greyish white; face strongly pilose.

Long. 5 mm.; breadth lat. pronot. process. 3 mm.

Hab. Mashonaland ; Salisbury, 5000 ft. (G. A. K. Marshall).

Subrincator, gen. nov.

Pronotum with the disk broad, moderately convex, very prominently, centrally, longitudinally carinate, lateral processes absent, but the lateral margins broadly, obtusely subangulate, the posterior process short, laminately, convexly dilated, its apex shortly subacute, about reaching the posterior angle of the inner tegminal margin ; face broader than long, rugose, eyes prominent ; tegmina a little more than twice as long as broad, the veins prominent, four apical cells ; legs robust, but tibiæ not dilated.

Subrincator tonkinensis, sp. n.

Body and legs black ; central carination, lateral margins, and a curved fascia on each lateral area to pronotal disk, central carination, a transverse fascia near middle, and the apical area of posterior pronotal process, apices of femora, and bases and apices of tibiæ sanguineous ; tegmina subhyaline, the veins black, basal area black spotted with sanguineous, two black spots on apical margin and some black macular suffusions on central area ; pronotum coarsely punctate, the lateral margins somewhat ampliate and reflexed ; face moderately shortly pilose ; other structural characters as in generic diagnosis.

Long. 9–10 mm. ; breadth lat. pronot. angl. 4 mm.

Hab. Upper Tonkin, Lao Kay, near Chapa (*R. Vitalis de Salvaza*, Brit. Mus.).

Genus HAMMA.

Hamma, Buckt. Trans. Linn. Soc. Lond., Zool. (2) vol. ix. p. 330, pl. xxi. fig. 3 (1906).

Type, *H. nodosum*, Buckt.

Hamma pattersoni, sp. n.

Body and legs piceous, apices of tibiæ and the tarsi pale ochraceous ; tegmina hyaline, wrinkled, reflecting the dark abdomen beneath, extreme base piceous, immediately followed by an obscure transverse pale ochraceous fascia, a costal ochraceous spot beyond middle, and some small discal indeterminate ochraceous suffusions ; pronotum with the whole of the frontal margin and the central carination to both the frontal angles and posterior process coarsely serrate, the

whole pronotal surface finely tuberculate, the face darker and more black in hue; the sinuosity of the posterior pronotal process with its pale apex and the upturned apex of the scutellum is perfectly shown in the figure.

Long. 4 mm.

Hab. Gold Coast; Aburi (*W. H. Patterson*).



Hamma pattersoni, sp. n.

GENUS TRICENTRUS.

Tricentrus, Stål, Hem. Afr. iv. p. 89 (1866).

Otaris, Buckt. Monogr. Membrac. p. 249 (1903).

Taloipa, Buckt. Trans. Linn. Soc. Lond., Zool. ix. p. 334 (1905).

Tricentrus auritus.

Otaris auritus, Buckt. Monogr. Membrac. p. 249, pl. lix. fig. 1 a (1903).

Hab. Sumatra.

Tricentrus orcus.

Centrotus orcus, Buckt. Monogr. Membrac. p. 247, pl. lx. figs. 7 a, b (1903).

Hab. Philippine Islands.

GENUS BOCCAR.

Bocchar (part.), Jacobi, Sjöstedt, Kilimandj. Exped. p. 120 (1910).

Bocchar montanus.

Bocchar montanus, Jacobi (part.), Sjöstedt, Kilimandj. Exped. xii. p. 120, t. ii. figs. 2 a, 2 b (1910).

Hab. Uganda; Ruanda, Mutanda, Kigesi (*Dr. C. H. Marshall*). Brit. E. Africa; Nairobi (*S. A. Neave*).

GENUS DAUNUS.

Damas, Stål, Hem. Afr. iv. p. 87 (1866); Berl. ent. Zeitschr. x. p. 386 (1866); Goding, Proc. Linn. Soc. N.S.W. xxviii. p. 30 (1903).

Type, *D. tasmaniae*, Fairm.

Daunus tasmanicæ.

Centrotus tasmanicæ, Fairm. Ann. Soc. Ent. Fr. (2) iv. p. 51², pl. iii. fig. 15 (1846).

Daunus tasmanicæ, Goding (part.), Proc. Linn. Soc. N.S.W. xxviii. p. 31 (1903).

Centruchoides tasmanicæ, Buckt. Monogr. Membrac. p. 227, pl. 1. fig. 6 (1903).

Hab. Tasmania, Australia.

Daunus vitta.

Centrotus vitta, Walk. List Hom. ii. p. 626 (1851).

Oxyrhachis contorta, Walk. Ins. Saund., Hom. p. 66 (1858).

Centrotus truncaticornis, Walk. *loc. cit.* p. 81.

Daunus tasmanicæ, Goding (part.), Proc. Linn. Soc. N.S.W. xxviii. p. 31 (1903).

Daunus vitta, Goding, *loc. cit.* p. 32 (1903).

Hab. Tasmania, Australia.

Daunus contractus.

Centrotus contractus, Walk. List Hom. ii. p. 622 (1851).

Daunus tasmanicæ, Goding (part.), Proc. Linn. Soc. N.S.W. xxviii. p. 31 (1903).

Hab. Australia.

X.—*Descriptions of new Freshwater Shells from Japan.*

By H. B. PRESTON, F.Z.S.

[Plate IX.]

THE shells described in the present paper were collected recently by Dr. N. Annandale during his dredging-operations in Lake Biwa. Though the collection includes only some seven species, a curiously varied Molluscan fauna is revealed, including as it does the Palearctic *Pisidium casertanum*, a species which ranges over Northern Europe and Siberia, and the genus *Choanomphalus*, which has hitherto been supposed to be confined to North-eastern Siberia, together with a small shell which the author has been unable to generically separate from *Lithotis*, which has, up to the present time, only been recorded from Central India.

It is greatly to be hoped that further investigations may be carried out in the lake, when, doubtless, further interesting material will be brought to light.